

PATENT

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Date:

10-6-05


Himanshu S. Amin

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Appellant(s): Nainesh P. Shah

Examiner: Daniel St. Cyr

Serial No: 10/017,655

Art Unit: 2876

Filing Date: December 6, 2001

Title: GOOD READ INDICATOR FOR HYBRID CODE READER

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL APPEAL BRIEF

Dear Sir:

Appellant's representative submits this brief in connection with an appeal of the above-identified patent application. Since prosecution had been reopened by the Examiner prior to a decision on the merits by the Board of Patent Appeals and Interferences, the appeal-related fees from the previous appeal are applied to the present appeal (MPEP 1208.02). In the event any additional fees may be due and/or are not covered by the credit card, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [TELNP217USA].

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I. Real Party in Interest (37 C.F.R. §41.37(c)(1)(i))

The real party in interest in the present appeal is Symbol Technologies, Inc., the assignee of the present application.

II. Related Appeals and Interferences (37 C.F.R. §41.37(c)(1)(ii))

Appellant, appellant's legal representative, and/or the assignee of the present application are not aware of any appeals or interferences which may be related to, will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims (37 C.F.R. §41.37(c)(1)(iii))

Claim 11 has been cancelled. Claims 1-10 and 12-22 stand rejected by the Examiner. The rejection of claims 1-10 and 12-22 is being appealed.

IV. Status of Amendments (37 C.F.R. §41.37(c)(1)(iv))

No claim amendments have been entered after the Final Office Action.

V. Summary of Claimed Subject Matter (37 C.F.R. §41.37(c)(1)(v))**A. Independent Claim 1**

Independent claim 1 recites an image collecting module, comprising: a first multicolor photo indicator to provide an indication of a valid read of a first portion of a hybrid dataform; and a second indicator to provide an indication of a valid read of a second portion of the hybrid dataform. (See e.g., page 2, lines 19-30 and page 5, lines 15-20).

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B. Independent Claim 13

Independent claim 13 recites a method of providing indication of a valid read by an image collecting module, comprising: reading in a first portion of a hybrid dataform; determining if the first portion is valid; reading in a second portion of the hybrid dataform; determining if the second portion is valid; and providing the indication in the form of a photo signal if the first and second portion are valid. (*See e.g.*, Fig. 3, and page 9, lines 6-23).

C. Independent Claim 20

Independent claim 20 recites an image collecting system, comprising: means for determining a valid read of a first portion of a hybrid dataform. (*See e.g.*, page 2, lines 23-26). Independent claim 20 also provides means for determining a valid read of a second portion of a hybrid dataform. (*See e.g.*, page 2, lines 26-27). In addition, independent claim 20 discloses means for enabling an illumination indicator if the first portion of the hybrid dataform is valid. (*See e.g.*, page 2, lines 28-29). Further, independent claim 20 recites means for disabling the illumination indicator if the second portion of the hybrid dataform is valid. (*See e.g.*, page 3, lines 9-11).

The means for elements described above are identified as elements subject to the provisions of 36 U.S.C. §112 ¶6. The structures corresponding to these elements are identified with reference to the specification and drawings in the above-noted parentheticals.

D. Independent Claim 21

Independent claim 21 recites an image collecting module, comprising: a vibration system for indicating the read status of a hybrid dataform, the system including; a first vibration indicator to provide an indication of a valid read of a first portion of the hybrid dataform, the first vibration indicator being an on state of the vibration system; and a second vibration indicator to provide an indication of a valid read of a second portion of the hybrid dataform, the second vibration indicator being an off state of the vibration system; wherein the vibration system vibrates upon the valid read of the first

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portion and remains on until the valid read of the second portion. (*See e.g.*, page 3, lines 21-24).

E. Independent Claim 22

Independent claim 22 recites a portable image collecting module, comprising: a first indicator to provide an indication of a valid read of a first portion of a hybrid dataform; and a second indicator to provide an indication of a valid read of a second portion of the hybrid dataform; wherein the first indicator and the second indicator each in the form of one of an audio signal, a photo signal, and a vibration signal. (*See e.g.*, page 2, lines 19-30).

VI. Grounds of Rejection to be Reviewed (37 C.F.R. §41.37(c)(1)(vi))

A. Claims 1-10 and 12-22 are unpatentable under 35 U.S.C. §103(a) over Li *et al.* (US 5,672,858), in view of Landt (US 6,677,852).

VII. Argument (37 C.F.R. §41.37(c)(1)(vii))

A. Rejection of Claims 1-10 and 12-22 Under 35 U.S.C. §103(a)

Claims 1-10 and 12-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Li *et al.* (US 5,672,858), in view of Landt (US 6,677,852). Reversal of this rejection is respectfully requested for at least the following reasons. The combination of Li *et al.* and Landt fails to teach or suggest each and every element set forth in the subject claims.

i. Li et al. and Landt, either alone or in combination, fails to teach or suggest all elements set forth in the subject claims.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to

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one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) *must teach or suggest all the claim limitations*. See MPEP §706.02(j). The *teaching or suggestion to make the claimed combination* and the reasonable expectation of success *must be found in the prior art and not based on the Applicant's disclosure*. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added).

Appellant's claimed invention relates to a portable image collecting module operable to read one-dimensional, two-dimensional and hybrid dataforms. The image collecting module comprises an indicator system and method that provides a user with indication of either a valid read, or an invalid read of: one-dimensional, two-dimensional and hybrid dataforms. Independent claim 1 (and associated dependent claims) recites: *a first multicolor photo indicator* to provide an indication of a valid read of *a first portion of a hybrid dataform*; and a *second indicator* to provide an indication of a valid read of *a second portion of the hybrid dataform*. Further independent claims 13, 20, 21 and 22, and claims that depend there from, respectively recite a method and a means for effectuating the invention. It is apparent that the claimed invention utilizes a first *multicolor photo indicator* to apprise a user of the validity, or invalidity of, a first portion of a hybrid dataform by the image collecting module. *Li et al.* and Landt, either alone or in combination, fail to teach or suggest this exemplary aspect of the claimed invention.

In the most recent Final Office Action (dated September 1, 2005), the Examiner states that *Li et al.* disclose an apparatus and method for reading hybrid indicia, *i.e.* a UPC symbol 411 and a UPS symbol 413. The Examiner cites Fig. 4B and col. 13, lines 17+. The passage of *Li et al.* in col. 13, lines 17-35 discloses the following:

The 4B configuration is identical to that of the FIG. 4A embodiment except as noted below. A photodetector 409, such as a photodiode, is included in the FIG. 4B configuration and is used to detect the reflection of light 440 from the scanning light beam 430 off the UPC symbol 411. For reading two symbols on a single package, the CCD 404 separately images the reflected light 440 from the UPS code symbol 413. The reflected light imaged by the

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CCD 404 may be either ambient light or light from the scanning light beam. The symbols are separately processed in the conventional manner. The processing may be performed, in whole or in part, within the scan unit as may be desirable for the applicable application. The scanning beam scans across both symbol 411 and 413 and is used both for aiming and/or orienting the scan unit as well as for producing the light which will be detected after reflection from symbol 411. The light beam could be used, with respect to symbol 413, solely for aiming/orienting purposes. However, the light beam could also be used for reading the symbol 413.

The Examiner also states that Li *et al.* teach in the background that if the code is successfully and completely decoded (read) the decoding process terminates with an indicator of a successful read (such as green light or audible sound). The Examiner cites col. 4, lines 3-14, which discloses the following:

The decoding process in known bar code reading systems usually works in the following way. The decoder receives the pulse width modulated digital signal from the bar code reader, and an algorithm implemented in software attempts to decode the scan. If the start and stop characters and the characters between them in the scan were decoded successfully and completely, the decoding process terminates and *an indicator* of a successful read (such as a green light and/or an audible beep) is provided to the user. Otherwise, the decoder receives the next scan, performs another decode attempt on that scan, and so on, until a completely decoded scan is achieved or no more scans are available. (emphasis added)

However, it should be noted that these cited passages fail to teach or suggest *both a first indicator and a second indicator* as presently claimed, where a *first indicator* provides an indication of a valid read of *a first portion of a hybrid dataform*; and a separate and distinct *second indicator* provides an indication of a valid read of *a second portion of the hybrid dataform*. In at least this respect, the Li *et al.* reference fails to teach or suggest the subject matter of the claimed invention.

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Furthermore, in the Final Office Action, the Examiner conceded that *Li et al.* failed disclose or fairly suggest that the indication means of the reader includes multicolor LEDs (i.e. photo, illumination, lights) or a vibration signal for indicating a valid read. Thus, in an attempt to rectify this deficiency, the Examiner offered Landt as providing the necessary teaching or suggestion to satisfy the Examiner's burden under 35 U.S.C. §103(a). The Examiner in particular indicated that support could be found at col. 6, line 24-40 of Landt. However, the cited passage reads as follows:

Importantly, the reader 100 of FIG. 3 includes minimal user input and output devices. *For example, the reader 100 employs only a trigger switch 306 and an indicator 308, both coupled to the processor 304, for providing user input and output, respectively. The indicator 308 may be a buzzer, speaker or other simple audible output device, or one or more light-emitting elements (such as a multicolor LED that changes color based on received signals.* Alternatively, the RFID reader 100 may employ a simple touch sensitive display. The reader 100 may also include an optional scanner or imager engine 309 to permit the reader to image and decode machine-readable symbols such as the bar code symbols 108 and 110. Other input devices can include a microphone for voice activation of the reader 100, or a distance or motion sensor to automatically enable reading/scanning of tags/symbols. (emphasis added)

Landt is simply brought in for listing a number of different types of audible or visible indicators that could be used as a single indicator 308 with a trigger switch 306 in a reader 100. However, it should be noted that only a *single* indicator is disclosed or suggested in the cited passage of Landt. There is no teaching or suggestion in Landt of *both* a first indicator *and* a second indicator, for respectively providing an indication of a valid read of respective first and second portions of a hybrid dataform. The Examiner states that:

...it would have been obvious for a person of ordinary skill at the time the invention was made to incorporate the well-known multi-color light emitting diodes (LEDs) indicating means for indicating to an operator whether each portion of the hybrid code whether each portion of the hybrid code

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has been successfully read (*i.e.* using color changing scheme).

However, there is no teaching or suggestion in either Landt or Li *et al.* of the desirability of such a combination. Indeed, it has been shown that neither reference includes a teaching or suggestion of *both* a first indicator *and* a second indicator, for respectively providing an indication of a valid read of respective first and second portions of a hybrid dataform. Therefore, there is no motivation in the references for the Examiner's supposition of the use of a multi-colored LED for "indicating to an operator whether each portion of the hybrid code whether each portion of the hybrid code has been successfully read." Such a combination could only be arrived at from a hindsight reading of the present disclosure. In any event, even if such a combination of Li *et al.* and Landt could be made, it would still fail to teach or disclose all the elements of the independent claims.

The arguments presented by the Examiner in support of the combination of Li *et al.* and Landt only have applicability to an image collection system that comprises a multicolor photo indicator or an audible indicator. However, of all the present independent claims, only claim 1 includes a multicolor indicator and only claim 22 makes reference to an audio signal. No basis is provided by the Examiner for applying this combination against independent claims 13, 20 and 21. In connection with a vibration-type indicator, as recited in independent claims 21 and 22, the Examiner has dismissed this feature as being functionally equivalent to an LED/audible indicator. However, no reference is cited that includes a teaching or suggestion in support of this supposition. In any event, independent claims 13, 20, 21 and 22 each recite elements or steps directed to reading *both* first and second portions of a hybrid dataform and indicating the valid reading of these first and second portions. As shown above, Li *et al.* and Landt, taken alone or in combination, fail to teach or suggest these limitations. It is therefore respectfully submitted that the Examiner has failed to establish a *prima facie* showing of obviousness against the present independent claims and the claims that depend therefrom.

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This is now the third appeal brief submitted in this prosecution, and the Examiner has twice-previously withdrawn the application from appeal to cite new prior art. In the course of this protracted prosecution, the Examiner has been reminded that in order to establish obviousness under 35 U.S.C. §103, the prior art reference (or references when combined) must teach or suggest all the claim elements. *See* MPEP §706.02(j). Moreover, the Examiner has been further counseled that an additional requirement for an obviousness rejection under 35 U.S.C. §103 is that the teaching or suggestion must be found within the prior art and not in the appellant's disclosure. *See e.g., In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). The Examiner has been unable to locate documents that directly or indirectly teach or suggest the utilization of tactile, audio and/or visual stimuli to indicate the appropriate read status of both a first and second portions of a hybrid dataform. The Examiner has admitted that *Li et al.* fails to disclose or fairly suggest that the indication means of the reader are multicolor LEDs (i.e. photo, illumination, lights) or vibration signals for indicating a valid read. In view of the above, it is thus submitted that, since the combination of *Li et al.* with Landt fails to fairly teach or suggest the subject matter recited in the present claims, the Examiner is impermissibly attempting to utilize appellant's specification as a 20/20 hindsight-based roadmap to achieve the purported combination; an exercise that the Court of Appeals for the Federal Circuit has condemned. *See e.g., Panduit Corp. v. Dennison Manufacturing Co.*, 1 USPQ2d 1593 (Fed. Cir. 1987).

In view of at least the foregoing, and since neither *Li et al.* nor Landt, either individually or in combination, contemplate the invention in its entirety as set forth in the subject claims, it is requested that the rejection of independent claims 1, 13, 20, 21 and 22, and associated dependent claims, be withdrawn.

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B. Conclusion

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of claims 1-10 and 12-22 be reversed.

If any additional fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Respectfully submitted,
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VIII. Claims Appendix (37 C.F.R. §41.37(c)(1)(viii))

1. An image collecting module, comprising:
a first multicolor photo indicator to provide an indication of a valid read of a first portion of a hybrid dataform; and
a second indicator to provide an indication of a valid read of a second portion of the hybrid dataform.
2. The module of claim 1, further comprising a processor to provide activation of the first multicolor photo indicator and the second indicator upon a valid read of the respective portions of the dataform.
3. The module of claim 1, the first multicolor photo indicator being a first LED and the second indicator being a second LED.
4. The module of claim 3, the first LED flashing a first color upon a valid read of the first portion and flashing a second color upon an invalid read of the first portion, and the second LED flashing the first color upon a valid read of the second portion and flashing the second color upon an invalid read of the second portion.
5. The module of claim 3, the first LED illuminating upon a valid read of the first portion, and the second LED flashing and the first LED turning off upon a valid read of the second portion.
6. The module of claim 1, the first multicolor photo indicator being an on state of a LED and the second indicator being an off state of the LED wherein the LED illuminates upon a valid read of the first portion and remains on until a valid read of the second portion.
7. The module of claim 6, the LED flashing red for an invalid read of one of the first portion and the second portion.

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8. The module of claim 1, the first multicolor photo indicator being a first LED signal and the second indicator being a first audible signal.

9. The module of claim 8, further comprising a second audible indicator generating a second audible signal, the first audible signal having a different tone than the second audible signal.

10. The module of claim 1, the second indicator being an audible indicator representative of an on state of an audible system and the second indicator being an audible signal of an off state of the audible system, wherein the audible system stays on upon the valid read of the first portion and remains on until the valid read of the second portion.

12. The module of claim 1, further comprising a selection switch for selecting between reading dataforms of a one-dimensional type, a two-dimensional type and a hybrid type.

13. A method of providing indication of a valid read by an image collecting module, comprising:

- reading in a first portion of a hybrid dataform;
- determining if the first portion is valid;
- reading in a second portion of the hybrid dataform;
- determining if the second portion is valid; and
- providing the indication in the form of a photo signal if the first and second portion are valid.

14. The method of claim 13, wherein providing the indication if the first and second portion are valid comprises providing a first indication if the first portion is valid and providing a second indication if the second portion is valid.

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15. The method of claim 14, wherein providing the first indication comprises flashing a first LED for a valid read of the first portion and providing the second indication comprises flashing a second LED for a valid read of the second portion.

16. The method of claim 14, further comprising providing an error indication if an invalid read occurs for one of the first portion and the second portion.

17. The method of claim 14, wherein providing the first indication comprises providing a first audible tone for a valid read of the first portion and providing the second indication comprises providing a second audible tone for a valid read of the second portion.

18. The method of claim 14, wherein providing the first indication comprises activating an audible tone for a valid read of the first portion and providing the second indication comprises deactivating the audible tone for a valid read of the second portion.

19. The method of claim 14, wherein providing the first indication comprises activating a vibration system for a valid read of the first portion and providing the second indication comprises deactivating the vibration system for a valid read of the second portion.

20. An image collecting system, comprising:
means for determining a valid read of a first portion of a hybrid dataform;
means for determining a valid read of a second portion of a hybrid dataform;
means for enabling an illumination indicator if the first portion of the hybrid dataform is valid; and
means for disabling the illumination indicator if the second portion of the hybrid dataform is valid.

21. An image collecting module, comprising:

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a vibration system for indicating the read status of a hybrid dataform, the system including;

a first vibration indicator to provide an indication of a valid read of a first portion of the hybrid dataform, the first vibration indicator being an on state of the vibration system; and

a second vibration indicator to provide an indication of a valid read of a second portion of the hybrid dataform, the second vibration indicator being an off state of the vibration system;

wherein the vibration system vibrates upon the valid read of the first portion and remains on until the valid read of the second portion.

22. A portable image collecting module, comprising:

a first indicator to provide an indication of a valid read of a first portion of a hybrid dataform; and

a second indicator to provide an indication of a valid read of a second portion of the hybrid dataform;

wherein the first indicator and the second indicator each in the form of one of an audio signal, a photo signal, and a vibration signal.

IX. Evidence Appendix (37 C.F.R. §41.37(c)(1)(ix))

None.

X. Related Proceedings Appendix (37 C.F.R. §41.37(c)(1)(x))

None.